

# Work Order ID 65740

Tuesday, January 25, 2011 10:19:52 AM



Page 1

Item ID: D204-635-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/24/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/31/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

*11*

Date:

*1-01-25*

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D2590

RevD DEO-D1

100

0.00



DC

Document Control

Memo

0.00

Photocopy bluefile & type labels per PPP D204-635-041  
CHG 003

*Sub 3/29*

365740

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries

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Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00



Skidtubes

0.00

Skidtubes

**Memo**

1- Inspect mat'l D2500-1-190 for damage

2-Cut D2500-1-190 per Dwg D2590 .Deburr ends

3-Drill pilot holes using drill jig DT 8149 &amp; DT8711-1&amp;-2 and open to finish size as per dwg

4-Deburr holes as per QSI002 section 4.2.3 and blow out all chips from inside of tube

5-Acid etch and Alodine tube per QSI 005 4.1

6-Bond web in place per QSI 015. Allow 12 Hrs. cure time before cutting Pick:

Qty ☐ Part Number ☐ Description ☐ Batch  
A/R ☐ ☐ Sikaflex-291 ☐ 116040 ☐

Sikaflex expire, date: 11/09/30

Start Time: 4:00 11/02/09

Fin Time: \_\_\_\_\_

BE 11/02/08

BE 11/02/09

BB

11/02/09

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Run Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120

0.00



CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend as per program D2590.C on CNC Bender

11-2-23

130

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Cut tubes as per Dwg. D2590.

2-Deburr ends after cutting.

11-3-8

140

0.00



QC

QC6- Inspect dimensions to drawing

Memo

0.00

Quality Control

S u l o s 11/5

X

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
11.03.17	150	Acceptable to use 0.049" WALL XBOLT SAKERS THAT ARE OTHERWISE MADE TO D4202 Rev A	BE	11/03/15		11.03.17 D57 042	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Prepare tube for welding D2576-3 Step Remove alodine as required.

2-Weld step D2576 as per Dwg. D2590 and QSI 004

A/R□□□ Aluminum Rod

M116577

BE 11/03/15

3-Grind weld flush on step

4-Insert D4202-1 spacer, swage as per QSI002 and trim/ grind flush per QSI002 and as per dwg

5-Drill holes for wearplates using DT 8218 &amp; DT8937 Open holes to 19/64", adjust stopper not to hit web. Debur

6-Drill pilot holes for aft cap using DT 8215 Open holes to #6 Drill bit. Debur

7-Drill pilot holes for Tow ring using DT9425, open to .640" and Debur  
\*\*\*\*verified dim. before drilling\*\*\*\*

BE 11/03/16

160

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

Sulor 1/22

70

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Customer:

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QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

170

QC6- Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

*Sub 11/03/22* *Q 11/03/22*

175

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

*(IX) m-l 11/03/23*

180

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:  
OVEN TEMPERATURE:  
FINISH TIME:

*11:35*  
*325°*  
*12:05*

*1 BL 11-3-23*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

190

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

m-p

11/03/28

(1X)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

200

0.00



HandFinish

Hand Finishing

**Memo**

0.00

1-Install inserts &amp; wearplates &amp; gaskets using a drop of Sikaflex on insert holes before installing wearplates

A/R ☐ ☐ ☐ Sikaflex-291 ☐ M116040

Sikaflex expire date: 1/1/09

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2590 and seal Fwd Step &amp; Aft Cap with Sikaflex. Clean excess adhesive

A/R ☐ ☐ ☐ Sikaflex-291 ☐ M116040

Sikaflex expire date: 1/1/09

5-Wing Walk as per Dwg D2590 and QSI 005

4.4

Batch:

M116402

mk 1/03/28

(IX)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

210

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

215

Identify as per dwg &amp; Stock Location: PG 72

0.00



Packaging

Memo

0.00

Packaging

220

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10

11/03/29

CX 11/03/29

MF

11-03-29

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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# Picklist Print

Tuesday, January 25, 2011 10:19:59 AM

Page 1

Work Order ID: 65740

Parent Item: D204-635-041

Parent Item Name: Replacement Skidtube




Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:F 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ  
IPP Rev:G 07-07-09 Added SS Wearplates & Gaskets JLM IPP Rev:H:  
add identify and stock seq DD 10.01.28 verf:EC  
IPP Rev:I 10.12.01 as per DEO DD  
verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4202-1  Spacer		Manufactured	No			150	Each	106.0000	17	17			
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				LG				106					
					64608			106					
ALS7-1032-130  Insert		Purchased	No			180	Each	1,628.000	44	44			
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				FP				689					
					115079			689					
				ST282				939					
					113238			17					
					115502			500					
					115581			422					
AN3-5A  Bolt		Purchased	No			180	Each	1,079.000	2	2			
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				ST350				1079					
					115016			379					
					115371			500					
					116632			200					

BE 11/03/16  
B 67308 17

m-l 11/03/28  
44x

m-l 11/03/28  
2x

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C4A Purchased No

180

Each

1,172.000

44

44



BOLT

## Location

## Loc Qty

## Loc Code

ST350

1172

115300

25

116075

947

116590

200

116924

44x

X

AN960C10L NAS1149C0332 Purchased No

R

180

Each

25.0000

44

44



washer

## Location

## Loc Qty

## Loc Code

ST245

25

107534

25

116304

44x

m-l 11/03/28

AN960JD10L NAS1149D0332J Purchased No

180

Each

0.0000

2

2



Washer

M117010

2x m-l 11/03/28

D2594-1 Manufactured No

180

Each

235.0000

10

10



Plug, 205 Skidtube

## Location

## Loc Qty

## Loc Code

FP

183

42807

112

55002

71

FP14

52

58434

15

62893

37

66932

10X

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Shop Packet Print

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Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

D2594-3

Manufactured No

180

Each

739.0000

10

10



O-Ring, 205 Skidtube

Location

Loc Qty

Loc Code

FP

43

65518

10X

55546

19

58191

12

59358

12

fpa

696

61762

696

D2855

Manufactured No

180

Each

54.0000

1

1



Cap

Location

Loc Qty

Loc Code

FP6

3

56613

1

63634

2

ST026

51

50513

1

50770

28

51539

2

53791

20

1X

D3564-11

Manufactured No

180

Each

7.0000

1

1



Wearshoe

Location

Loc Qty

Loc Code

FP019

7

62236

7

66154

1X

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Shop Packet Print

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Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

D3564-13

Manufactured No

180

Each

15.0000

1

1



Wearshoe

Location

Loc Qty

Loc Code

FP17

15

66805

IX

59660

1

61828

2

62229

12

D3564-7

Manufactured No

180

Each

25.0000

1

1



Wearshoe

Location

Loc Qty

Loc Code

FP

25

33803 ✓

4

43229

15

46492

6

IX

D3564-9

Manufactured No

180

Each

16.0000

1

1



Wearshoe

Location

Loc Qty

Loc Code

FP

1

55334

1

66153

IX

FP19

15

62238

15

D3566-1

Manufactured No

180

Each

4.0000

2

2



Gasket

Location

Loc Qty

Loc Code

FP015

4

57715

1

63573

3

67496

2X

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Shop Packet Print

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Tuesday, January 25, 2011 10:20:00 AM

Page 5

Work Order ID: 65740

Parent Item: D204-635-041

Parent Item Name: Replacement Skidtube

Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

D3566-13

Manufactured No

180

Each

25.0000

1

1



Gasket

Location

Loc Qty

Loc Code

FP012

5

61996

5

FP014

20

64070

20

66550

m-l 11/03/28

1X

D3566-7

Manufactured No

180

Each

25.0000

1

1



Gasket

Location

Loc Qty

Loc Code

FP

25

37354

6

55490

19

m-l 11/03/28

1X

D2500-1-190

Manufactured No

110

Each

78.0000

1

1



Ext'n - I Beam Tube 4"

Location

Loc Qty

Loc Code

LG

78

52319

7

58427

71

1

D2597

Manufactured No

110

Each

0.0000

1

1



204 Web

366297

1 11/02/09

Tuesday, January 25, 2011 10:20:00 AM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

Tuesday, January 25, 2011 10:20:00 AM

Page 6

Work Order ID: 65740

Parent Item: D204-635-041

Parent Item Name: Replacement Skidtube

Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

D2576-3

Manufactured No

150

Each

62.0000

1

1



Step (maching detail)



*BB 1/31/15*

Location

Loc Qty

Loc Code

LG

62

46661

14

52215

48

*ETB*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN #	DRAWN BY PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D2590	REV. D SHEET 1 OF 2
DATE 07.04.05		TITLE 204 SKIDTUBE ASSEMBLY	SCALE NTS
A	96.09.16	NEW ISSUE	
B	96.12.02	AS MANUFACTURED	
C	98.08.28	REDRAWN, INCLUDED DEO 9094/9097	
D	07.04.05	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124	

RELEASED  
07-06-28-#

DEO ATTACHED

QTY -041	Part Number	Description
X	D2590-041	SKIDTUBE ASSEMBLY
1	D2500-1-190	EXTRUSION
1	D2576-3	STEP
17	D2579	CROSS BOLT SPACER
10	D2594-1	PLUG
10	D2594-3	O-RING
1	D2597	204 WEB
1	D2855	AFT CAP
1	D3564-7	WEARSHOE
1	D3564-9	WEARSHOE
1	D3564-11	WEARSHOE
1	D3564-13	WEARSHOE
2	D3566-1	GASKET
1	D3566-7	GASKET
1	D3566-13	GASKET
44	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
44	AN3C4A	BOLT
2	AN3-5A	BOLT
44	AN960C10L	WASHER
2	AN960JD10L	WASHER

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 65740

BS11-0125

**GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2597 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-204 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (44 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:  
ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB  
POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

A circular cross-section of a pipe. The outer diameter is indicated by a horizontal double-headed arrow at the bottom, labeled 3.500. The wall thickness is indicated by two vertical double-headed arrows on the left and right sides, each labeled 1.750. The interior of the pipe is divided into three horizontal sections by two horizontal lines. Four small circles are located on the inner circumference, one in each of the three horizontal sections.

**DETAIL B**  
SCALE 5:24

GRIND FLUSH (4 PLACES)

GRIND FLUSH

D2576-3 STEP

GRIND FLUSH

LOCATION RIDGE ON UNDERSIDE OF D2576

1/16

Technical drawing of a bolted joint assembly. The drawing shows a cross-section of a bolt and nut assembly. The bolt is labeled "AN3-SA BOLT (1)" and the nut is labeled "AN96QJD10L WASHER (1) (2 PLACES)". The bolt is shown with a "D2855 CAP" (cap) and a "DRILL PRIOR TO D2855 CAP INSTALLATION (2 PLACES)". The drawing also includes a dimension of "0.40" and a note "SEAL WITH SIKAFLEX-241".

5

D2579 SPACER

D2597 WEB (REF)

AL57-1032-130 (REF)  
(TYP 44 PLACES)

AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:

1. CHAMFER HOLE Ø0.50 X .45
2. INSERT D2579 SPACER (17 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

ELEVATION

37.50  
DISTANCE TO AFT END OF D2597 WEB

3  
7

#0.508 (TYP.)  
(34 PLACES)

REFER TO DETAIL A

1.750 1.750

8.750 17.375 26.000 35.000 71.000

36.000 (REF)  
4 EQUAL SPACES  
9.00 PITCH

38.0 169.5  
(D2500-1)

Diagram illustrating a horizontal curve with a 4% grade and a 0.640% grade. The diagram shows a transition from a 1.4% grade to a 0.640% grade. Key dimensions include a 1.0 distance between the hole and the tangent point, a 6.5 distance between the hole and the tangent point, and a 37.5 ± 1.0 distance between the hole and the tangent point. A 13.4 distance is also indicated.

**D2350-V41 ASSEMBLY DETAIL**

WELD AS PER DETAIL B

BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE

0.5

1.5

1.5

BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE

8

1.5

1.5

REFER TO DETAIL C

D3566-1

P D

P P P P

D3566-7

D3566-1

D3566-13

D3564-11

D3564-7

D3564-9

D3564-13

AN3C4A BOLT (1)  
AN960C10L WASHER (1)  
(44 PLACES)

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1:24

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



DRAWING NO. D2590	TITLE 204 SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D2590-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>UP</i>	CHECKED <i>JK</i>	MFG. APPR. <i>E</i>	APPROVED <i>MP</i>		DE APPR. <i>MP</i>		
DATE 10.09.22	DATE 10.11.04	DATE 10.11.04	DATE 10/11/04		DATE 10.11.04		

**PURPOSE:**

CHANGE ALL WELDED CROSSBOLT SPACERS TO SWAGED SPACERS

**CHANGE:**

PARTS LIST IS AMENDED AS FOLLOWS:

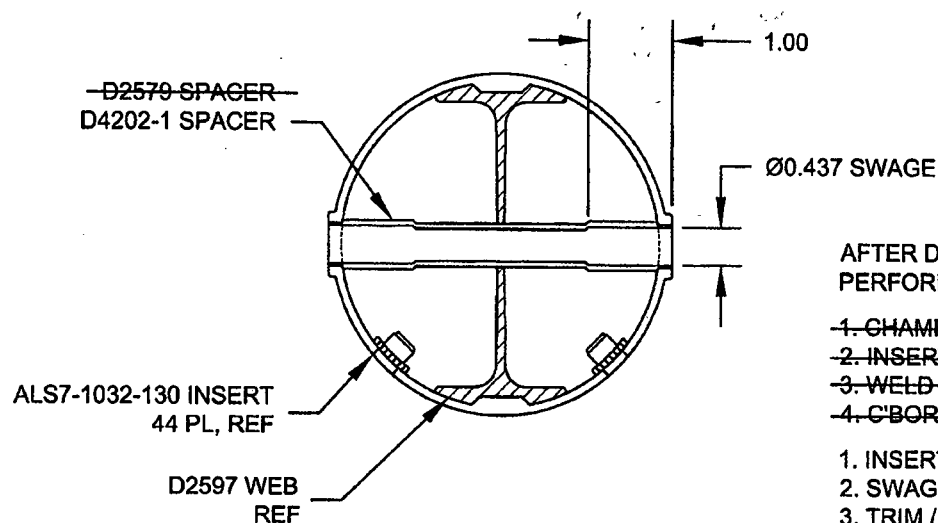
WAS

QTY	PART NUMBER	DESCRIPTION
17	D2579	CROSS BOLT SPACER

IS

17	D4202-1	SPACER
----	---------	--------

SECTION D-D IS AMENDED AS FOLLOWS:



AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:

- ~~1. CHAMFER HOLE 0.050 X 45°~~
- ~~2. INSERT D2579 SPACER (17 PLACES)~~
- ~~3. WELD INTO PLACE AND GRIND FLUSH~~
- ~~4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP~~
1. INSERT D4202-1 SPACER, 17 PL
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002
3. TRIM / GRIND FLUSH PER QSI 002

**SECTION D-D**  
NOT TO SCALE

**RELEASED**  
2010-11-17  
*MP*

*w/o 65740*

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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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